NAVAL SUPPLY SYSTEMS COMMAND

CONCEPT OF OPERATIONS

For

LOGISTICS SUPPORT CENTER
USS Harry S. Truman (CVN-75)

Version 3.00
03-Dec-99

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Subj: Operational Concept Description

1. The purpose of this Operational Concept Description is to establish roles and responsibilities between the Logistics Support Center and a carrier supply operation.

2. The pilot platform is the USS Harry S. Truman (CVN-75).

3. This document will continue to be revised, as necessary. The undersigned individuals represent approval authority for any major revisions to this document.

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RECORD OF CHANGES

VER/CH NO.	EFFECTIVE DATE	CHANGE DESCRIPTION	CHANGE LOCATION
0.09	**16OCT99**	Initial Release	
1.00	**26OCT99**	Rsupply will be in place.	
		AVDLR/DLRs will be in the Navy Working Capital Fund.	
		More detail was provided on suspense processing.	
		Specific information about costs and phases.	
		More detail on Program Management Resources	
2.00	**12-Nov-99**	Updated LSC CONOPS signature page.	
		Added a Scope Section	
		Updated Organization Chart to reflect USS Truman actual organization	
		Added an explicit assumption that the inventory record moves from ship to shore.	
		Included an additional Expediting function for the LSC	
		Added sub-section on Technical Resources and made a distinction between SPAWARSYSCEN and other technical approaches	
		Added specific detail on the demonstration of the capability with R-Supply.	
		Added additional metrics (downtime)	
3.00	**03-Dec-99**	Added FISC Norfolk CO to signature page	Page ii
		Added details on implementing the LSC concept in Two phases.	5.0, 5.1-5.3.11
		Added additional reviewers (CPF, AIRLANT 412c1)	6.1
		Added specific detail on AIRLANT N41/LSC chain of command and roles	6.2.2, 6.2.3
		Delineated system requirements for Phases One and Two	6.3.1, 6.3.2

RECORD OF CHANGES

VER/CH NO.	EFFECTIVE DATE	CHANGE DESCRIPTION	CHANGE LOCATION
		Referenced the correct paragraphs for the IOC.	6.3.2
		Changed criteria for buy in of follow on phases.	7.1
		Added Phase One Timelines	8.1

1 Purpose

The purpose of this Concept of Operations (CONOPS) is to define the roles and responsibilities of the Logistics Support Center (LSC) as a pilot operation in support of the USS HARRY S. TRUMAN (CVN 75). The LSC will assume many of the back room functions of inventory and financial management. It will take advantage of replication technology to monitor and support the afloat supply operation.

2 LSC GOAL

The goal and impetus to establish an LSC for this pilot project is to reduce costs and improve performance for the shipboard logistics and financial management functions. The LSC concept will facilitate moving workload ashore, enhance total asset visibility for both Navy and joint visibility. The LSC will operate a trusted and up-to-date version of the ship's inventory management system.

The ship will perform basic supply management processing of receipt, issue, inventory and stow. Adjustments will be recorded in R-Supply and replicated ashore into a synchronized version of R-Supply operating in the Logistics Support Center.

The LSC will monitor inventory movement, re-order, manage requisitions, inventory allowances levels and perform financial up line reporting.

The Two databases will be kept in synchronization using a Maritime Data Link.

3 Scope

This document does not consider other proposed pilot projects which may require LSC resources. These other pilots may include other supply functions such as disbursing, ship's store sales and service, or food service.

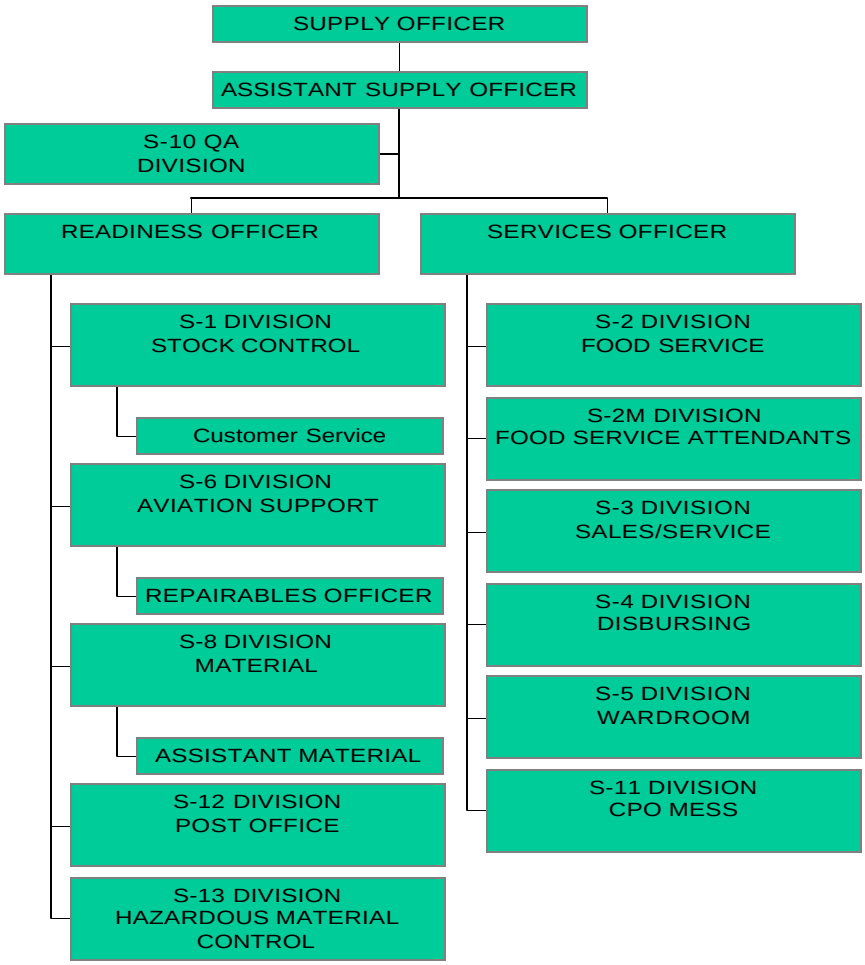
4 Background

The USS HARRY S. TRUMAN (CVN 75) was designated as "SMART CARRIER" on 24 August 1999. Several pilot programs will be applied to the "as is" carrier work processes to streamline business functions, facilitate moving workload ashore and integrate improved information technology into the current workload processes to improve efficiency. The LSC is an important step in improving core supply functions aboard ship and an initial portion of the process to reduce shipboard workload for supply functions. The LSC pilot focuses on the financial and inventory management functions done in Stock Control.

4.1 Ship Supply Department Organization

The CVN supply department is organized into the divisions as follows:

SUPPLY DEPARTMENT ORGANIZATION CHART



4.2 "AS-IS" Key Logistics Functions

A brief description of the roles of the key supply, carrier logistics functions are discussed below.

4.2.1 Basic Material File (BMF) Management:

The BMF is the automated file of stock records in R-Supply (Force). The BMF entails Two distinct tasks; maintenance of accurate stock record data elements and interpretation of R-Supply (Force) output. Both tasks seek to optimize readiness with accountability in management of material.

In R-Supply (Force), the BMF is called the Stock Item Table (SIT).

4.2.2 Physical Inventory:

The physical inventory program onboard the ship is designed to improve the accuracy of inventory control and asset information. The primary objectives of the physical inventory are to ensure the inventory balances on the SIT agree with the actual quantity on-hand and that the location data is accurate.

4.2.3 Material Procurement:

The SIT is screened for items that meet reorder criteria based on the parameters and options selected by the Stock Control (S-1) Division. The reorder review listing, which is produced is reviewed by both the Material and Stock Control Officer for material that is not desired onboard or bulky material that exceeds stowage constraints. Regular automatic reorders for the full range of consumable items are processed weekly or more frequently during work-up periods.

4.2.4 Material receipt, custody, stowage and shipment:

The ship expends considerable effort in the receipt process. A central receiving area is established for the staging, segregating and sorting all incoming material.

4.2.5 Material Expenditures:

Material carried in inventory is expended through issues, transfers, loss by inventory and surveys. R-Supply (Force) processes expenditures through the Material Requirements Internal (MRI) function and the Material Requirements External function. The Naval Aviation Logistics Command Management Information Systems (NALCOMIS) and the Organizational Maintenance Management System – Next Generation (OMMS-NG) connect with R-Supply (Force) via electronic interface (EI) for processing of material issues generated for aviation support.

4.2.6 Requisition Management:

One of the most important functions of the Stock Control Officer is dues management. Stock Control is responsible for maintaining the validity of the Basic Requisition File (BRF). An important tool to maintain the effectiveness of requisition management is the internal and external Material Obligation Validation (MOV).

4.2.7 Aviation/Surface Depot Level Repairable (AVDLR/DLR) Management:

Repairables constitute approximately 80 percent of the afloat inventory dollar value and are funded by the Navy Working Capital Fund (NWCF). Because of operational readiness and high dollar value, the ship expends considerable time and effort in R-Supply (Force) input verification, carcass tracking and inventory location validity programs.

4.2.8 Stock Control Functions:

Many functions of stock control have been touched on in the above paragraphs. In addition to these duties Stock Control is responsible for the overall operation and function of the R-Supply (Force) system.

4.2.9 Financial Management:

The financial management functions performed include establishing and executing an annual financial plan, establishing priorities and procedures, funds management and financial reports.

Section 1001 of the AIRTYCOM 4440.1b refers to the main operating targets (OPTAR) passed down by fleet commanders. The OPTARs addressed in this CONOPS include Operation and Maintenance, Navy (O&MN), Aviation Operation Maintenance (AOM), Flight Operations (FLTOPS) and Supplies and Equipage (S&E) funds management.

OPTAR management includes Financial Transmittal (TL) generation/submission three times a month with a Budget OPTAR Report (BOR) for each account. These are submitted for the current and Two prior fiscal years.

Financial management also includes processing of a Summary Filled Order Expenditure Difference Listing (SFOEDL) and the Unfilled Order Listing (UOL) for each OPTAR by Fiscal Year.

Financial Management is a time intensive operation for both Stock Control and Aviation Support Departments.

4.2.10 Bulk Fuel Processing:

Bulk fuel management is mostly for JP5 operations. The many variables encountered in fuel processing makes careful monitoring and attention to detail essential in prevention of unmatched receipts and expenditures, excessive inventory adjustments, and erroneous charges.

5 "TO-BE" State LSC Pilot

The proposal for the LSC pilot CONOPS focuses on financial and inventory management functions currently performed onboard the USS TRUMAN and eventually would establish the LSC facility ashore to perform many of the shipboard processes.

A capability is being built to replicate R-Supply (Force) onboard the ship and support all operational unit applications and databases. When this capability is fully mature, the LSC would take over the burden of up-line reporting, respond to queries from other activities and implement the latest security technology (Public Key Infrastructure, Virtual Private NeTworks, and Smart Card Technology). The establishment of the LSC with ship replicated database will provide access to data for joint Logistics applications, fleet operational commanders and service specific applications supporting movement of work off ship. Other operational databases may be included at a later date.

Pending demonstration of a fully mature capability to replicate R-Supply (Force) onboard the USS TRUMAN and support all operational unit applications and databases, this CONOP will discuss the "To-Be" state for the LSC Pilot in Two phases. Phase I is an interim stage utilizing currently mature technical capabilities. Phase TWO is longer-term and dependent on a demonstration of full R-Supply functionality.

5.1 Phase One Assumptions

These assumptions apply only to the Phase I pilot on the USS Truman:

- The LSC will be located at V-88 in Norfolk, VA.
- The Officer-in-Charge of the LSC will support the USS TRUMAN Supply Officer and report to the NAVAIRLANT Supply Officer.
- Utilizes readily available systems and resources (doesn't require Maritime Data Link, replication hardware/software, training)
- USS TRUMAN will transfer designated Stock Control responsibilities according to the following schedule:

5.1.1 Phase One Daily Operations:

The LSC will assume limited Stock Control functions. Operations will be conducted in accordance with current AIRTYCOM 4440.2 series with certain stock control operations moved ashore. Specific responsibilities require further definitions, but the following general responsibilities are assigned:

5.1.2 Phase One LSC Responsibilities

- BMF Management
- BRF Management
- RAB/RAO
- SAMMA/SAL
- MTIS Offload
- LAPs/Inventory (inport)
- Material relocation/consolidation (inport/local ops)
- Material/location bar codes (inport/local ops)
- Receipt processing (inport/local ops)
- Retrograde turn-in by appointment

5.1.3 Phase One Ship Responsibilities

- Financial Management – SFOEDL processing, STARS-FL TL reporting
- Suspense processing
- Change Notice processing
- Material procurement
- Def-to-RO management
- AVDLR management (RMB)
- RODs, QDRs
- IBS management
- Physical inventories
- LAPs
- Material receipt, custody, stowage and shipment (deployed)
- Material expenditures
- Reorder review
- IPF2, IPF3
- Material Obligation Validations
- Shelf-life management
- CASREP processing

- Storeroom management
- Report 21 reconciliation
- IMPAC Card management
- FACTS
- Customer Service
- Port services
- Custody cards (MAMs)
- Non-standard requirements
- Continuing service contracts
- Expediting (Beach detachment)
- NMCS/PMCS/AWP Off-ship requisition procedures

5.1.4 Phase One Shared Responsibilities

- Daily management reports review
- Ship and LSC will still perform daily save transfers via SALTS, email or Internet

5.2 Phase Two Assumptions

These assumptions apply only to the pilot on the USS Harry S. Truman:

- The official inventory record shall move from the ship to the Logistics Support Center.
- The LSC will be located at FISC Norfolk building in Norfolk, VA.
- The Officer-in-Charge of the LSC will support the USS HARRY S. TRUMAN Supply Officer and report to the NAVAIRLANT Supply Officer.
- Maritime Data Link (MDL) will provide 100% accuracy of the inventory and financial records between ship and shore, within twenty-four hours**,** taking into account EMCON conditions.
- The LSC will be responsible for NWCF Financial and Allowance Management.
- Levels will be run and managed at the LSC, and replicated afloat for storeroom action processing.

The following paragraphs describe the specific functional concept of operations.

5.2.1 Phase Two Stock Item Maintenance:

SHIP - The ship would continue to have basic stock item maintenance functions to include local management codes, automatic re-order restriction codes, location changes, allowance type changes, and other minor stock item maintenance functions.

LSC - The LSC will monitor and take corrective actions for the BMF range and depth, AVCAL and COSAL range and depth, re-distributable assets on order (RAO), re-distributable assets on board (RAB), deficiency to requisitioning objective (DEF-TO-RO).

Change notice will be run at the LSC. Output listings from change notice will be replicated to the ship, validated at the ship, and maintained on file.

Automated Shore Interface (ASI). ASI processing could be done in conjunction with replicated OMMS-NG ashore, should NAVSEA agree to a partnership arrangement.

Suspense Processing is a key aspect of BMF or SIT maintenance. See Section 5.9.1 on Suspense Processing.

Micro-SNAP will not be replicated. Q-COSAL items will continue to need to be managed by ship's force. The Q-COSAL storekeeper on the ship will manage QCF.

5.2.2 Phase TWO Physical Inventory

Physical inventory responsibilities will remain the same.

5.2.3 Phase TWO Material Procurement:

SHIP - The Material and Stock Control Officer shall review/approve the reorder run schedule and the auto reorder review listings once the reorder is run. The procurement of non-standard stock will be validated at the Customer Support Center, and replicated to the LSC.

The ship will provide technical assistance as required for the maintenance technician for technical assistance on drawings and part numbers while the LSC will handle the material requirement once a requirement is submitted and properly approved by the chain of command. Not carried, not in stock, and non-standard stock material would be processed through the ships Customer Support Center. The non-standard requirements would be sent to the LSC.

LSC – For stock re-orders, the Stock Item Table is screened for items that meet reorder criteria based on the parameters and options selected by the Material Officer / LSC OIC. Both the Material Officer and LSC OIC review the re-order review listing, for material that is not desired onboard or bulky material that exceeds stowage constraints. Once the review is complete, the LSC would make the appropriate changes, taking into account Working Capital Fund Consumable and other thresholds, and release the reorder.

For Direct Turnover/Not Carried/Not In Stock material, requirements will be processed by LSC. ZOC release and SALTS transmissions will be controlled and executed at the LSC. Dues listings will be replicated back to the ship.

For non-standard requirements, the ship will first confirm that it can not issue material from the storeroom. Most purchases under $2,500 will be procured using the purchase card.

For those purchases requiring Non-Standard procurement outside of the purchase card, the LSC will use the Automated Non-standard Requisitioning System, which provides an EDI solution for Non-Standard procurement.

Purchases will be reconciled with a pay and chase system. The LSC will pay for purchase card transactions, and will reconcile those transactions that the ship can not certify.

5.2.4 Phase TWO Material receipt, custody, stowage and shipment:

SHIP – The ship will be responsible for stowage of material. It will verify the material being moved into the storerooms by LSC and contractor personnel.

LSC – LSC will augment ship's force to stow material. Hard copy receipts will be scanned into FIMS at the LSC and discarded.

5.2.5 Phase TWO Material Expenditures:

SHIP - Material carried onboard is expended through issues, transfers, loss by inventory and surveys. The supply system processes expenditures through the MRI, MRE, OMMS and NALCOMIS. Material expenditures would continue to be processed onboard.

LSC - The hard copy of the expenditure documents would be received from the ship, processed in FIMS and discarded.

5.2.6 Phase TWO Requisition Management:

In Relational Supply, the SUADPS Basic Requisition File is called the Requisition Table (RT).

SHIP - Continue to conduct departmental monthly MOV processing.

Working with the LSC, the ship will need to continue to perform spot inventories to validate over-aged requisitions with shipping status.

LSC – The LSC is responsible for maintaining the validity of the RT. The RT management function conducted by the LSC would include posting status, sending follow-ups, releasing outgoing status to the supply system, excess stock due cancellations, and research of over-aged, outstanding requisitions with shipping status. All external MOVs will be initially processed and managed at the LSC.

The LSC will send all Material Receipt Acknowledgements into the system, and respond to all Material Receipt Follow-ups.

5.2.7 Phase TWO Aviation/Surface Depot Level Repairables Management:

Repairables constitute approximately 80 percent of the afloat inventory dollar value. AVDLR/DLRs will be funded under the NWCF. Because of operational readiness and high dollar value the ship expends considerable time and effort in R-Supply (Force) input verification, carcass tracking and ongoing inventory and location validity programs. Due to the high impact and dollar value, there will be no explicit responsibilities the LSC takes on in support of AVDLR/DLR management that have not already been discussed.

5.2.8 Phase TWO Stock Control Functions:

SHIP - The Functional Area Supervisor will be the primary point of contact for communication with the LSC.

LSC - Change Notice processing, level setting, cancellation request, auto reorder, financial updates, SIT/RT management, filing receipts and offload processing will all be conducted at the LSC.

Access control will need to be done by a Functional Area Supervisor both on the ship and at the LSC. Both supervisors will need to keep in close contact to ensure that roles and responsibilities have been clearly defined. The LSC will screen and forward all change proposals and trouble calls for R-Supply (Force).

5.2.9 Phase TWO Suspense Report Processing

SHIP - There are key suspense codes that will require ship's force personnel to reconcile and resolve. If NALCOMIS and OMMS-NG are also replicated, the suspense codes that can be worked by the LSC will increase dramatically, thus easing shipboard workload.

Ship's force will continue to conduct location audits and other actions necessary to resolve suspense report issues.

LSC - The LSC will monitor and take corrective actions for the BMF range and depth, AVCAL and COSAL range and depth, re-distributable assets on order (RAO), re-distributable assets on board (RAB), deficiency to requisitioning objective (def-to-RO),

The LSC will add new records in the Maintenance Support Center based on the technician's needs and approval of the requesting department. These items are reflected as 'not carried' on the suspense report.

5.2.10 Phase TWO Financial Management:

SHIP - OPTAR management through the Division/Departmental Budget Report (report 21) reconciliation and Monthly MOV processing.

LSC - Conduct all NWCF financial management functions assisting the ship in the management of the annual financial plan, establishing priorities, funds management and submission of financial reports and transmittal letters.

The LSC will submit all Transmittal Letters for all three fiscal years across all OPTARs.

The LSC will process the SFOEDL and Unfilled Order Listings, using the Ship's and MALS Automated Reconciliation Tracking System (SMARTS).

The LSC will forward all MFCS TIRs that reflect ship receipts issues and adjustments that have been replicated ashore.

Stock In Transit/Material In Transit reconciliation will first forwarded to the LSC. Follow-on actions will be coordinated by the LSC for storeroom and location validation.

Continuing Service Contracts & Obligations Managed by ship, will be worked by the local NRCC for an AOR.

5.2.11 Phase TWO Expediting

The LSC will be responsible for all high priority expediting of ship requests. These include functions that were previously conducted at fleet expediting cells.

6 Resource Estimate

Resources will be needed in three areas: Management, LSC, and Technical.

6.1 Management Resources

Resources will be needed to monitor shipboard and LSC workload to ensure they are both properly resourced, and that there are no functional gaps.

One Management Program Manager and one Program Analyst for the period of the pilot will be required. The program analyst will collect source data and create reports, for Program Manager review. The Program Manager will recommend policy and procedure changes for the NAVSUP P-485 and AIR Type Commander functions. The Program Manager will be on site at the Logistics Support Center 25% of the time. 75% of the time will be in Mechanicsburg.

The following personnel have provided feedback and input into prior versions of the document:

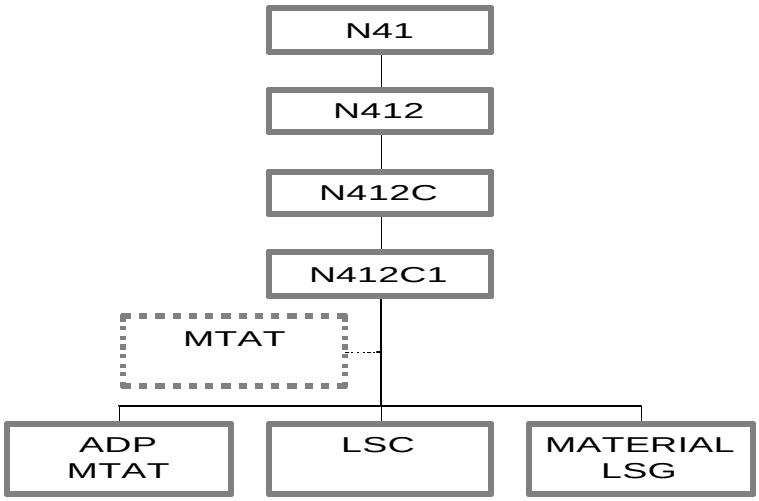
NAVSUP:	CAPT Maguire, Kevin Fitzpatrick, CAPT Nanney, CAPT Pottinger, Paul Peters, Karen Meloy, CDR Andy Benson, CDR Jerry McEnerney, CDR Dave Brumfield, CDR (Sel) Ted Digges, CDR (Sel) Karen Fallon, Rich Schaefer, Tom Pate, Mike Burr (RCI), Dave Wismer (RCI), Jim Etheridge (Troy Systems), SKC Gary Christman, AK1 James Bailey, Ron Shultz, Chuck Bruner (LMI),
CINCLNTFLT:	CAPT Cook, CDR Robin Joseph, CDR John Qua
CINCPACFLT:	Chris Neff
AIRLANT:	CAPT Freihofer, CDR Morris Caplan, CDR (Sel) Ron Black, Joe Cruz (CACI), LT Feliciano
SPAWARSYSCEN Chesapeake:	CAPT McIlravy, Pete Davenport, Nick Cirillo, Millie Cohen
FMSO:	LCDR Kristilyn Jones
DDNV:	LT Fred Bautista
BUPERS:	LCDR Steven Gill
FISC Norfolk:	CAPT Al Thompson, CDR Kurt Kunkel
FOSSAC	CDR Leto Mogsombol

6.2 LSC Resources

For both Phases One and Two, operation of the LSC will fall under the cognizance of AIRLANT N41. The AIRLANT Material Training and Assist Team (MTAT) will provide initial set up assistance.

6.2.1 Personnel

Below is a depiction of the AIRLANT proposed chain of command.



The following initial LSC roles apply:

	Grade	Function
1.	O-3	STK Control Officer: Reports review
2.	E-7/8	Functional Area Supervisor System Maintenance Reports review
3.	E5	Clerk: Off load Processing RAB/RAO SAMMA/SAL
4.	E4	Clerk: BMF Maintenance Receipt Processing/Posting
5.	E4	Clerk: BRF Maintenance Receipt Processing/Posting
6.	E-3/4	Clerks Receipt Processing/Segregate/Stow (3 required)

6.3 Technical Resources

Technical resources for phase one will rely mostly on transferring full volume backups from the ship on a periodic basis, and placing this backup onto a web page for processing and visibility. Phase Two resources require the demonstration and testing of the Maritime Data Link.

6.3.1 Phase One System Requirements

The existing CINCLANTFLT TAC-4 training system located in V-88 is insufficient to accommodate the ashore LSC operation in addition to R-Supply training and trouble shooting. An additional system is required.

Daily saves will be exchanged between the LSC and USS TRUMAN via website resources so that both databases can be updated and reflect current data. The available website will have to be modified to support data transmission and saves.

Five workstations will be required by the LSC to perform all required functions.

As operations expand and the LSC responsibilities increase, additional TAC boxes will be required. If operations utilizing Legacy are brought ashore, TAC-3 systems will be required and then eventually replaced with TAC-4 systems to support R-Supply implementation.

6.3.2 Phase Two SPAWARSYSCEN Chesapeake Proposal

The SPAWARSYSCEN technical proposal fits into three phases:

(1) development of shore based infrastructure and web-based access for replication of NTCSS optimized data bases and implementation of a carrier with a replication server,
(2) development of replication for legacy data bases and implementation on the remaining ships in a battle group; and
(3) development of application programming interfaces and segments for displaying logistics information in a common operational picture display.

This concept of operations deals exclusively with the actions necessary to start Phase I of the technical resources proposal.

This proposal is for the development of the design and concept of operations details for the Maritime Data Link, and for the preparation and conduct of a limited capability demonstration associated with moving workload off of the USS HARRY S TRUMAN as it relates to the ASDOF effort. In performing this task SPAWARSYSCEN will document the specific details of Phase I design, address the technical areas of risk and identify solutions. The cost to complete the efforts described in this proposal is $580K, and SPAWARSYSCEN Chesapeake estimates that it can complete these efforts within 90 days from date of tasking.

After completing the above parts of Phase I of the MDL Proof of Concept, SPAWARSYSCEN would like to proceed with the remaining elements of Phase I as quickly as possible. This includes procuring the hardware for the shore based site and the CVN equipment, completing development of capability to run NTCSS applications using the replicated data bases for all applications, development of the web based query capability, and implementing it on a CVN to be determined. Time required to meet rules and lead times for installation on ships, lead times for hardware procurement, and software development times need to be factored into the follow-on schedule.

Sections 6.3.2.1 through 6.3.2.6 define the deliverables in the SPAWARSYSCEN technical proposal.

6.3.2.1 Design Plan

After completing this subtask SPAWARSYSCEN will have:

- completed development of the one-way replication scripts and architecture for all NTCSS optimized application databases;
- determined the hardware configuration requirements for the facility;
- determined and documented the methods for partitioning the server for handling a large number of data bases;
- determined how to provide access to the data base for NTCSS applications run from a Logistics Support Center;
- determined how to replicate changes back to ships data bases (Two way replication) and;
- determined issues that need to be addressed regarding policies and procedures for maintaining data base integrity.

6.3.2.2 Communications Plan

This task encompasses determining methods of communicating between afloat sites, shore sites and the shore based data facility; make appropriate arrangements with the communications infrastructure to allow replication efforts; and prepare and implement security plans. After completing this subtask SPAWARSYSCEN will have:

- estimated and documented bandwidth requirements for replication of various platforms;
- prepared procedures for handling extended communications outages;
- coordinated requirements for communications with appropriate Fleet and shore activities;
- identified policies, methods and tools for providing information security for MDL;
- determined methods for passing information from/through the fleet firewalls.

6.3.2.3 Information Security Plan

This task will develop test methods for replicating data from optimized systems to the shore based data facility. After completing this subtask SPAWARSYSCEN will have:

- determined and stipulated thresholds for key characteristics of MDL;
- determined the test procedures and methods necessary to assure that replication is working within thresholds; and
- prepared a testing plan.

6.3.2.4 Installation Plan

This task prepares hardware installation and implementation plans for a complete battlegroup. After completing this subtask SPAWARSYSCEN will have:

- identified the hardware requirements for each class of ship;
- determined availability of existing servers/services and made appropriate arrangements for sharing, or determined new hardware requirements;
- identified the appropriate ship alterations needed or that can be shared for installation of necessary hardware; and
- developed preliminary technical data for ship alterations.

6.3.2.5 Demonstration

In addition to the above, SPAWARSYSCEN will arrange a demonstration of the replication process for NTCSS optimized databases at a shore site (TBD). As part of this demonstration, SPAWARSYSCEN will show access to one data base by one NTCSS application, access to a data base using the VDB product and a simple web based query.

6.3.2.6 Initial Operating Capability

This will result in the installation of replication servers on the ship and LSC cite, execution of the plans and lessons learned from the efforts in 6.3.1.1 through 6.3.1.5. The LSC will require 10 workstations that are connected to an R-Supply client. There will need to be an application and replication servers at the LSC.

7 Pilot approach

The pilot will be executed and evaluated in three phases. These are buy in, execution, and evaluation.

7.1 Buy In

This phase will result in documentation of the concept of operation, agreement by all stakeholders in the concept of operations, dedication of resources for the pilot, and a demonstration of the commercial viability of the technical solution. At the end of this phase, the signatory stakeholders will decide on the technology to use for the phase Two effort.

7.2 Execution

LSC Standup will be required Two months prior to transfer of responsibilities from the ship to the LSC. The pilot will be conducted during a Two-month exercise in preparation for a full one-year assessment.

7.3 Evaluation

This phase will start no sooner than the beginning of phase Two, and will extend Two months after the completion of phase Two.

8 Funding and time frames required to support requirements

8.1 Phase One Timeframes

Date	Action
December, 1999	• Identify personnel • Establish procedures • Move TAC-3 system from USS GEORGE WASHINGTON to V-88
January, 2000	• Establish V-88 systems/database access • Test data transfer applications

February, 2000	• LSC assume designated material management responsibilities
March, 2000	• LSC operational

8.2 Phase Two Timeframes and Funding

8.2.1 Phase Two Demonstration

Amount	Deliverable	Deliverable Date
$100, 000	Demonstration	NLT 15 FEB 00.

1. A minimum of one thousand issues will be made from the ship (represented at Chesapeake).

2. A minimum of one thousand stock requisitions will be generated from the LSC, and replicated as a due to the ship.

3. A minimum of 500 DTO requirements will be generated from the ship. Depending on the maturity of the technology, the ship will either release the requisitions to DAAS, or replicate the requirement to LSC, which will generate the DTO requisition.

4. A Dummy TL, or similar compare report, will be run at both the LSC and ship and compared to reflect the balance.

The demonstration will include passing the transactions through ADNS and the local Navy Computer and Telecommunications Area Master Station.

8.2.2 Planning

Amount	Deliverable	Deliverable Date
$480,000	Design Plan Data Communications Plan Information Security Plan Installation Plan	90 days from award ($100K already provided)

This proposal will have the SPAWARSYSCEN hardware and development costs for the initiative and a timeline.

8.2.3 Execution

SPAWARSYSCEN Chesapeake has presented the following cost proposal. This proposal includes the capability to replicate the Organization Maintenance Management System – Next Generation (OMMS-NG) and optimized NALCOMIS-IMA. As of today, we are still looking for an updated proposal from SPAWARYSCEN Chesapeake that is for Two-way replication of Relational Supply only, without the need for the VirtualDB product.

Amount	Deliverable	Deliverable Date
$1,140,000	Initial Operating Capability	June 2000

This will procure the hardware, software and detailed support for the capability at the Logistics Support Center. This cost assumes replication of OMMS-NG and optimized NALCOMIS-IMA. Additional discussions with the other Hardware Systems Command may reduce this cost.

Amount	Deliverable	Deliverable Date
$880,000	Personnel and equipment to operate LSC for one year, starting in April 2000.	Need funds by January 2000 to effect personnel to be in place by 1 April 2000.

This will pay for the personnel to man the Logistics Support Center. Total cost to operate for one year is $2,600,000

9 Metrics to Measure Success During Pilot

9.1 Supply Metrics

All Afloat Supply Metrics will continue to apply. Two key supply metrics include:

1. Workload savings afloat, in hours.
2. Value of initial SFOEDL and UOLs.

9.2 Technical Metrics

Technical metrics include the following:

1. Data Latency: The average time between an afloat inventory transaction and the time it takes to replicate ashore, when all systems are working properly.

2. Communications Down Time: The amount of time the communication system can not transmit during the pilot. This would be categorized as:

   a) Imposed down time (do to other comm priorities),
   b) Operational communication down time (ie. EMCON)
   c) Systems down time (failure to sync up properly, garbled transmissions).

10 Performance standards

Performance standards will remain the same, as document in the AIRTYCOM 4440 instruction.

11 Risks and Risk Management

There will be key risk ensuring that the databases are in synchronization. A demonstration of the technology, using the V-88 R-Supply database and one at SPAWARSYSCEN Chesapeake, will address this concern.

12 Training Needs

Two months prior to execution, ship's force and LSC personnel will need to be familiarized with the replicated features and concept of operations.

13 Policy Changes Required

The AIR TYCOM instructions contain all necessary procedures to support carrier supply operations. This instruction will need to be modified in order to reflect the additional responsibilities of the LSC, and the decreased responsibilities of the ship.